

**Schedule for ME/EE 685 - MEMS Design & Applications
Spring 2015**

Week Number	Dates	Lecture Topics	Labs	HWs	Deadlines
	Wednesday				
Week 1	23-Jan-15	Overview of MEMS			
Week 2	28-Jan-15	Introduction			
Week 3	04-Feb-15	Review of Microfabrication/Lithography			
Week 4	11-Feb-15	PolyMUMPS	Cleanroom		
Week 5	18-Feb-15	Dr. SK in Indonesia			
Week 6	25-Feb-15	MEMS Accelerometer Design			Select review paper topic & get approval
Week 7	04-Mar-15	MEMS Simulations Lab (COMSOL)	COMSOL	HW 0	
Week 8	11-Mar-15	Optical MEMS Design		HW 1	
Week 9	18-Mar-15	MEMS Pressure Sensor Design		HW 2	3/18 - Finalize project team set-up
Week 10	25-Mar-15	Mask Layout & Design (Lecture+Lab)	COMSOL + Cov.	HW 3&4	3/25 - Abstract for project proposal
Week 11	01-Apr-15	SPRING BREAK	SPRING BREAK		SPRING BREAK
Week 12	08-Apr-15	BioMEMS Design		HW 5&6	Final Design Review + Masks Ready + Review Paper
Week 13	15-Apr-15	Mid-Term		HW 7&8	
Week 14	22-Apr-15	Final Design Project Update - Address Issues			Submit MEMS Design Portfolio
Week 15	29-Apr-15	Final Design Project Presentations			Submit Final Project PPT

Homeworks	HW 1	MEMS Accelero Design. 'Design-by-Rule'		HW 5	MEMS Pressure Sensor Design.
	HW 2	MEMS Accelero Design. 'Design-by-Analysis' - FEA		HW 6	MEMS Pressure Sensor Design (FEA)
	HW 3	Optical MEMS Switch. 'Design-by-Rule'		HW 7	MEMS Lithography
	HW 4	Optical MEMS Switch. 'Design-by-Analysis' - FEA		HW 8	MEMS Lithography

Final Projects	Point Person		Point Person	
Group 1 Microfluidics 1 with Dr. Allen cell trapping	Sebastian Shaner Ben Yeoman Deepa Karen Paul Swathi	Sebastian	Group 5 Wearable Pressur Sensor	Julian Espinoza Bjoern Garcia David Garcia Karthik Hiran
Group 2 Microfluidics 2 With UI cell separation	Madiha Boothby Michael Boothby Paul Boothby Jeff C Boothby	Madiha	Group 6 Wearable Temp. Sensor	Daniel Cavero Simon Cavero Anthony Cavero Sriram Cavero Alessio Cavero
Group 3 Microfluidics 3 with Chem Dept Separation System	George Emil Emil Emil Apoorva Emil Jeun Emil Michael Y Emil	Emil	Group 7 NeuroMEMS	Charles Chau Ben Mashian Donald Mashian Mahidhar Mashian Ehran Mashian
Group 4 RF Antenna with Dr. Satish	Thet Vuong Vuong Vuong Rafat Vuong		Group 8 SolarMEMS	Rijkaard Amrutes Amrutes Amrutes Yonatan Amrutes

Group Number	Design Ready	Mask Ready/Details	Supplies Needed	Notes
Microfluidics1				Groups 1 & 2 - Mieko Hirabayashi
Microfluidics2				Groups 3 & 4 - Noah Goshi
Microfluidics3				
RF Antenna				Groups 5 & 6 - Chris Bui
Wearbale 1				
Wearable 2				Groups 7 & 8 - Alessio
NeuroMEMS				
SolarMEMS				